

Patent claims

1. An injection unit for an injection-molding machine for processing thermoplastic material, the injection-molding machine having a screw which is guided in a cylinder and the axial movement of which can be initiated by a first motor and the rotary movement of which can be initiated by a second motor, an electrical direct drive being provided as the first motor, characterized in that only the second motor (DM) is connected to the screw (SCH) via a gear mechanism (R, RS1, RS2), in such a way that the rotational speed of the second motor (EM) can be reduced to a lower speed of the screw (SCH), adapted to the material-preparing process.
2. The injection unit as claimed in claim 1, characterized in that the gear mechanism (R, RS1, RS2) can be blocked during the operation of injecting the thermoplastic material.
3. The injection unit as claimed in claim 2, characterized in that a non-return valve is provided as the block.
4. The injection unit as claimed in claim 2 or 3, characterized in that a belt-pulley gear (R, RS1, RS2) is provided as the gear mechanism.
5. The injection unit as claimed in one of the preceding claims, characterized in that the first motor (EM) rotatably moves a spindle (SP), which is connected to the screw (SCH), via a displaceably secured spindle nut.